

Case 3162

***Ceratichthys micropogon* Cope, 1865 (currently *Nocomis micropogon*; Osteichthyes, Cypriniformes): proposed conservation of usage of the specific name by the designation of a neotype**

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and the other members of the joint Common and Scientific Names Committee of the American Fisheries Society and the American Society of Ichthyologists and Herpetologists: Joseph S. Nelson (Chairman) (*University of Alberta, Alberta, Canada*), Edwin J. Crossman (*Royal Ontario Museum, Toronto, Ontario, Canada*), Hector Espinosa-Perez (*Universidad Nacional Autonoma de México, Mexico City, D.F., Mexico*), Lloyd T. Findley (*CIAD-Unidad Guaymas, Guaymas, Sonora, Mexico*), Robert N. Lea (*California Fish and Game, Monterey, California, U.S.A.*) and James D. Williams (*United States Geological Survey, Gainesville, Florida, U.S.A.*).

Abstract. The purpose of this application is to conserve the specific name of *Ceratichthys micropogon* Cope, 1865 (now *Nocomis micropogon*) for the common and widespread river chub (family CYPRINIDAE) of eastern North America. Cope's (1865) description has been shown to have been based on a hybrid between the river chub and the common shiner, *Luxilus cornutus* (Mitchill, 1817). The name *N. micropogon* has been used consistently for the river chub since 1926 but, under Article 23.8 of the Code, it is not a valid name for the parent species of the hybrid. It is proposed that the current usage of *N. micropogon* for the river chub be conserved by the designation of a neotype.

Keywords. Nomenclature; taxonomy; Osteichthyes; Cypriniformes; CYPRINIDAE; *Nocomis micropogon*; river chub; North America.

1. Cope (1865, p. 277, footnote) described *Ceratichthys micropogon*, based on a single specimen (no. ANSP 5061 in the Academy of Natural Sciences of Philadelphia), 67 mm standard length, from the Conestoga River, in the Susquehanna River drainage of eastern Pennsylvania.

2. Cope (1867, p. 366, pl. 12, fig. 2), in a redescription of *C. micropogon*, suggested the possibility that it was of hybrid origin, and for many years the identity of the nominal species was in doubt.

3. The genus *Nocomis* Girard, 1856, to which *Ceratichthys micropogon* is now referred, was based on the single nominal species *N. nebracensis* Girard, 1856, collected in the Sweetwater River, a tributary of the Platte or Nebraska River. Jordan & Evermann (1896, pp. 322–323) synonymised *N. nebracensis*, *N. micropogon* (Cope, 1865), and *Semotilus biguttatus* Kirtland, 1841 (p. 344, the hornyhead chub) with *Luxilus kentuckiensis* Rafinesque, 1820 (pp. 238–239), described from an unspecified

locality in the state of Kentucky (Jordan & Gilbert, 1886, p. 4 having already synonymised *biguttatus* with *kentuckiensis*). The genus *Nocomis* was long considered to comprise a single species to which these authors, Jordan (1889, p. 110), Goldsborough & Clark (1908, p. 36) and Fowler (1909, p. 550, pl. 27) applied the name *kentuckiensis*.

4. Hubbs (1926, pp. 28–29), in his review of *Nocomis*, concluded that the genus comprised three species, of which two (the river and hornyhead chubs) occur in Kentucky. Another member of the genus, *Nocomis effusus* Lachner & Jenkins, 1967 (pp. 560–570, the redbail chub), was later described from this state, and three other species found outside Kentucky were described in 1971 (see Lachner & Jenkins, 1971a, pp. 17–41; 1971b, pp. 3–10).

5. Hubbs (1926) determined that Rafinesque (1820), in the original description of *kentuckiensis*, did not list any diagnostic characters by which the two (now three) Kentucky species of *Nocomis* could be distinguished. Based on his findings, Hubbs (1926) adopted what he considered to be the next available specific names: Cope's (1865) name *micropogon* for the river chub, and Kirtland's (1841) name *biguttatus* for the hornyhead chub, with Girard's (1856) name *nebrascensis* treated as a junior synonym of the latter (see also Lachner & Jenkins, 1971a, p. 13).

6. Lachner & Jenkins (1971a, p. 42) examined the holotype of Cope's (1865) nominal species *Ceratichthys micropogon* and found the specimen to be hybrid between the river chub and the common shiner, *Notropis cornutus* (Mitchill, 1817) (now *Luxilus cornutus*), thus confirming Cope's (1867) earlier suggestion (para. 2 above). Lachner & Jenkins noted that Cope's (1865) specimen resembled others resulting from hybridisation between the river chub and the common shiner, and that this hybridisation is common.

7. Lachner & Jenkins (1971a) noted that Article 17(2) of the 1961 Code stated that a name is or remains available even though 'it is found that the original description relates to . . . an animal or animals later found to be hybrid'. They then applied Cope's specific name *micropogon* to a 'presumed parent [the river chub] of the type specimen' (see para. 9 below).

8. Article 17(2) of both the 1961 and 1964 editions of the Code stated (as does Article 17.2 of the current edition) that a species-group name later considered to have been based on a hybrid remains available, but no mention was made as to its validity for a taxon. The situation was clarified by an addition to the Code adopted at the Monaco International Congress of Zoology in 1972 (BZN 29: 81, December 1972; see also BZN 31: 79–81, August 1974). The new Article 24c stated that 'a species-group name which is found to have been based on a hybrid (Art. 17(2)) must not be applied to either of the parental species'. This addition was incorporated into the 1985 edition and the current (4th) edition of the Code (as Article 23h and 23.8 respectively).

9. Although its use for the river chub is invalid under Article 23.8 of the Code, the name *micropogon* Cope, 1865 has consistently been used for the species since 1926 (see para. 5 above). To our knowledge *micropogon* is the only name for the river chub; there is no junior synonym (see Gilbert, 1998, pp. 29, 114). A new name would disrupt nomenclatural stability of this common and widespread species, would serve no useful purpose, and would be confusing to all those with an interest in the species, including those working in applied fields (ecology, conservation, physiology and behavior, for example) as well as taxonomists. We propose that *Nocomis micropogon*

(Cope, 1865) be conserved for the river chub, and that a neotype be designated in accord with this long-term and current usage of the name. The proposed neotype is specimen no. USNM 166416 in the National Museum of Natural History, Washington, D.C., a nuptial male (165 mm standard length) collected by Ernest A. Lachner on 3 June 1948 from Stone Creek, a tributary of the Juniata River (Susquehanna River drainage), Huntingdon County, Pennsylvania (the locality of the proposed neotype is thus in the same river drainage as Cope's original type locality). The specimen was illustrated by Lachner & Jenkins (1971a, p. 47, fig. 25).

10. The Commission Secretariat holds a representative list of 26 publications, dating from 1928 to 1995 and additional to those mentioned in the application, which demonstrate the long-established and current usage of the name *Nocomis micropogon* (Cope, 1865) for the river chub. The most recent works include Carlander (1969, pp. 402–403), P.W. Smith (1979, p. 74), Stauffer, Hocutt & Denoncourt (1979), Buynak & Mohr (1980), Trautman (1981, pp. 272–274), Cooper (1983, pp. 94–95), C.L. Smith (1985, pp. 144–145), Burr & Warren (1986), Menhinick (1991, pp. 70–71), Etnier & Starnes (1993, pp. 198–199), Jenkins & Burkhead (1994, pp. 321–324) and Stauffer, Boltz & White (1995, pp. 112–114).

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12. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to set aside all previous type fixations for *Ceratichthys micropogon* Cope, 1865 and to designate the male specimen USNM 166416 in the National Museum of Natural History, Washington, D.C., as the neotype;
- (2) to place on the Official List of Specific Names in Zoology the name *micropogon* Cope, 1865, as published in the binomen *Ceratichthys micropogon* and as defined by the neotype designated in (1) above.

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